

Amendments to the Claims:

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently amended) A method of determining a television viewer's viewing habits, the method which comprises:

recording a viewer's monitor behavior with data item variables ~~selected from the group consisting of watch date, watch start time, watch duration, and watch channel;~~ including watch channel, watch start time and at least one of watch date and watch duration;

from a server-side system inputting historical data information regarding demographic information tagged to the viewer;

inputting program guide information; and

at a client-side system associating the program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with demographic cluster information of the viewer in terms of statistical state machine transition models.

2. (Original) The method according to claim 1, wherein the step of defining the knowledge base comprises calculating a parameterized transition matrix defining the viewer's viewing habits, the transition matrix containing information of program transitions initiated by the viewer.

3. (Original) The method according to claim 2, which comprises defining at least two concurrent transition matrices including a channel matrix and a genre matrix.

4. (Original) The method according to claim 2, which comprises defining the transition matrix as a two-dimensional matrix with transitions from television channels to television channels in temporal form.

5. (Original) The method according to claim 1, which comprises providing feedback information with the viewer's monitor behavior by recording a click stream.

6. (Currently amended) The method according to claim 1, which comprises parameterizing the viewer's monitor behavior with a ~~double-random~~ pseudo hidden Markov process, ~~and defining a low-level statistical state machine modeling a behavioral cluster and a top-level statistical state machine with active behavioral clusters and an interaction between the active behavioral clusters.~~

7. (Currently amended) The method according to claim ~~6~~ 18, which comprises defining the double random process with a plurality of dimensions, and determining parallel statistical state machine transition events in at least two of three state categories including channel, genre,

and title.

8. (Currently amended) A computer-readable medium ~~that stores thereon a plurality of processor-executable instructions which, when executed by a processor, perform a process for:~~
encoded with a plurality of processor executable instructions for implementing a function of:

capturing state transitions by defining monitor behavior in a plurality of statistical state machine families each representing ~~a given~~ the viewing behavior of a particular viewer or demographic group ~~viewing behavior;~~

combining the statistical state machine families into global statistical state machines defined in a global probability density function;

updating and reinforcing the global probability density function upon determining that a given probability function has a higher confidence level than a previous probability density function; and

outputting a global profile based on the global probability density function, wherein the global profile is suitable for determining programming content of a television server.

9. (Currently amended) The computer-readable medium according to claim 8, wherein the state transitions represent a television viewer's monitor behavior and the statistical state machines are selected from the group ~~consisting of watch date, watch start time, watch duration, and watch~~

~~channel.~~ comprising watch channel, watch start time, and at least one of watch date and watch duration.

10. (Currently amended) The computer-readable medium according to claim 8, wherein the global profile represents demographic cluster information of the a viewer in terms of the statistical state machine transition matrix. ~~models.~~

11. (Previously presented) The computer-readable medium according to claim 8, wherein the state machines are defined in a parameterized transition matrix defining the viewer's viewing habits, the transition matrix containing information of program transitions initiated by the viewer.

12. (Previously presented) The computer-readable medium according to claim 11, wherein the transition matrix is one of at least two concurrent transition matrices including a channel matrix and a genre matrix.

13. (Previously presented) The computer-readable medium according to claim 8, wherein the transition matrix is a two-dimensional matrix with transitions from television channels to television channels in temporal form.

14. (Currently amended) The computer-readable medium according to claim 8, configured to parameterize the viewer's monitor behavior with a ~~double-random~~ pseudo hidden Markov process, ~~and defining a low-level statistical state machine modeling a behavioral cluster and a top-level statistical state machine with active behavioral clusters and an interaction between the active behavioral clusters.~~

15. (Previously presented) The computer-readable medium according to claim 8, which comprises defining the double random process with a plurality of dimensions, and determining parallel statistical state machine transition events in at least two of three state categories including channel, genre, and title.

16. (Currently amended) The computer-readable medium according to claim 10, which comprises:

at a client-side system, associating program guide information with the viewer's monitor behavior and defining therefrom a knowledge base with demographic cluster information of the viewer in terms of at least one statistical state machine transition matrix. ~~models.~~

17. (New) The method recited in claim 1 wherein the data items have a probability function with a confidence level, and the method further comprises:

updating the historical data information upon determining that a given data item has a probability function with a higher confidence level than a previous data item.

18. (New) The method recited in claim 6 wherein the pseudo hidden Markov process is a double-random process.

19. (New) The method recited in claim 18 further comprising:
defining a low level statistical state machine modeling a behavioral cluster, and a top-level statistical state machine with active behavioral clusters and an interaction among the active behavioral clusters.

20. (New) The computer-readable medium recited in claim 14 wherein the pseudo-hidden Markov process is a double-random process.

21. (New) The computer-readable medium recited in claim 20, further comprising:
defining a low-level statistical state machine modeling a behavioral cluster, and a top-level statistical state machine with active behavioral clusters and an interaction among the active behavioral clusters.

22. (New) The method recited in claim 2 wherein the parameterized transition matrix is in a temporal form.

23. (New) The method recited in claim 2 wherein the parameterized transition matrix includes a first matrix for TV watching activities and a second matrix for TV channel surfing.